

Unifying the IoT edge

Accelerate the development of secure and reliable edge applications with EdgeX running on Ubuntu

What is EdgeX?

EdgeX Foundry is a highly flexible, scalable, and vendor-neutral open-source framework hosted by the Linux Foundation that facilitates the development of data collection, analytics, and cloud connector services.

Modular and scalable

EdgeX has a modular and extensible software architecture based on microservices that enables plug-and-play software applications that act as a cloud-to-edge middleware. It provides a standard open framework, simplifying application development, deployment, and portability.

Interoperable

The edge is inherently heterogeneous and complex. There are many communication standards and multiple cloud and IT endpoints that edge systems must integrate with. EdgeX provides reference implementations for key IoT protocols along with SDKs to allow users to create new ones.

Using EdgeX, legacy devices and communication protocols can be translated into a language that modern smart devices and cloud applications can understand.

Low latency / high performance

Low latency data processing is key in edge computing applications, as many real-time applications require predictability requirements. EdgeX addresses round-trip response times measured in the order of milliseconds using standard operating systems. Additionally, EdgeX also enables strategically choosing which data will be sent to the cloud and which should be processed at the edge.

Reliable

Connectivity outages or poor network performance is a main concern for distributed edge computing and IoT applications that might rely on unstable connections. EdgeX can operate without disruption during intermittent or lost connectivity to the cloud, protecting the ability to analyse data and perform local actions.

Wide market applicability

EdgeX provides a horizontal set of standard services that can be used to support edge computing use cases across industry verticals, including manufacturing, retail, banking, transportation, hospitality, healthcare, and more.

Deploy secure, reliable and high-performance edge applications at scale

Whether you are building an industrial gateway, an edge AI/ML application, a monitoring system, or any other product that requires data acquisition, analytics, and cloud connectivity, EdgeX Foundry is the perfect solution to develop your application.

Running EdgeX on Ubuntu as snaps provides the required security and reliability to deploy and maintain applications at scale.

[Learn more about snaps](#)

Leverage the power of an edge computing integrated OS and framework

Developers love EdgeX

EdgeX is supported by a growing community of developers and vendors creating an ecosystem of interoperable components, which makes it the de-facto framework for building edge computing applications.

A wide range of networking APIs and SDKs simplify the integration with EdgeX. With the help of configurable connectors, it is even possible to integrate with zero code.

Developers love Ubuntu

Ubuntu is the world's number one desktop and cloud Linux operating system, and among the top 3 global PC Operating Systems. Developers can run the exact same underlying operating system on their desktops as they do on their servers, in the cloud, and on IoT devices with the same software packages available on all versions of Ubuntu.

To deploy IoT and edge applications at scale, just develop them on Ubuntu Desktop and deploy them on Ubuntu Core, the OS tailored for the IoT.

Integrated framework

EdgeX Foundry integrates seamlessly with Ubuntu, with a growing list of services being published and maintained as snaps by Canonical. Developers can rely on a reliable, secure, and continuously updated system, benefiting from the transactional bullet-proof OTA updates provided by the Snap Store.

Maintain your device for its lifetime with long term support

When used in conjunction with Ubuntu Core, EdgeX comes with 10 years of security updates. Increase your device security while enjoying a decade of software updates and CVE fixes.

[Learn more about Ubuntu Core](#)

Cut costs and trim time to market

Time and resources are the most valuable assets of your organization.

- With EdgeX, you can focus on developing your application
- Let Canonical take care of the underlying operating system
- Get Canonical's [premium services](#) to accelerate the time to market either with custom or pre-certified hardware

[Learn more about certified devices](#)

Getting started

Getting started with EdgeX as snaps is fairly simple, just install the [edgexfoundry snap](#) and the [snaps](#) of your chosen device or application services, and off you go.

For more detailed information, follow the tutorial "[Get started with EdgeX as snaps](#)" or watch our webinar "[Running enterprise-grade edge applications with EdgeX on Ubuntu Core](#)".



For more information about how Canonical can help you bring your edge computing application to the market using EdgeX and Ubuntu, [contact us](#) or call direct (US Central) +1 888 986 1322 or (UK) +44 800 058 8704.